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FOREIGN AGRICULTURE



West African Rice

**North Africa—Potential
Feedgrain Market**



October 6, 1969

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This week's cover:

A Moroccan landscape. Paul Ferree discusses North Africa as a potential market for U.S. feedgrains in article beginning this page. A Liberian woman spoons rice—a staple of the West African diet which will be improved by the West African Rice Development Association. See page 8.

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North Africa's

Current efforts in north Africa to inject modern methods of breeding and feeding into the livestock and poultry industries could broaden the now-minimal market for feedgrains in an area where local grain production must, of necessity, concentrate on foodgrains.

The livestock industries at present in the Maghreb countries (Morocco, Tunisia, Libya, and Algeria) are such that current demand for feedgrains is relatively small. Among them, these countries have something like 26 million sheep and 3½ million head of cattle, but for the most part these are nomadic herds that are given little care or feed other than natural vegetation. As a result, livestock numbers fluctuate widely, and meat production depends on annual rainfall; meat prices and supplies show substantial seasonal variations owing to the long dry season that normally occurs from June through October each year.

North Africa has no significant feed industry as we know it in the United States. Wheat or barley straw is the principal feed available to livestock during the dry summer season. Barley is a major crop in these countries, which also produce some corn and sorghum. However, these potential feedgrains, especially barley, are still grown primarily for food. In drought years, some barley and corn may be imported, again to meet human food requirements. Some barley and other grains may be exported following exceptional harvests, rather than being diverted to animal feed. Likewise, other potential feed ingredients—bran, sugar beet pulp, molasses, oilseed cake—are exported.

Room for optimism

The mere fact that the area's livestock and feed industries are at such a low stage of development offers room for optimism about feedgrain sales. They can only improve—they have to improve. Annual meat consumption in the north African countries probably averages no more than 25 to 35 pounds per capita; consumption of dairy and poultry products is similarly low. National governments in the area, aware that production of animal protein must be increased, have all made provisions for strengthening their livestock industries in their multiple-year plans. The governments have recognized that merely increasing production to match population growth is not enough; that far greater production and higher quality are required as living standards improve and tourism in the area expands.

Generally, the Maghreb countries have made good starts toward improving livestock through breeding and by imports of foundation stock. Algeria imports several thousand head of dairy and other cattle annually; modern chicken farms are springing up in Libya; Morocco annually imports 1.5 million chicks for breeding stock; and Tunisia imports breeding cattle and sheep, as well as 200,000 baby chicks annually. Forage

Paul Ferree, just back from 4 years as U.S. Agricultural Attaché in Morocco, sees investment in livestock and poultry enterprises as the avenue to greater sales of U.S. feedgrains in north Africa.

Potential for Livestock Production, Feed Use

production and range management are receiving attention, in some cases with U.S. assistance. In each country, at least a start has been made toward creation of a feed-mixing industry. Advisors have pointed out that feed ingredients now being exported or wasted should be converted to meat and milk. Certainly, there is a desire to produce more feedgrains, too; but emphasis on production of breadgrains continues, and sufficient output of both is still a long way off.

The investment route

From my 8½ years of experience in Africa—4 of them in the north—I realize that these developments often come about slowly, even after becoming a part of national policy. Lack of technical know-how, shortage of capital, and certain institutional problems are among the obstacles. For this reason, I have supported the theory that American investors—perhaps cooperator groups that work with the Foreign Agricultural Service to expand U.S. exports—can hasten this development by participating in projects of mutual interest. I am thinking of such investment areas as poultry and livestock production, dairy farming, feeding and fattening operations, and mixed-feed manufacture.

I would not propose the investment route for influencing trade if there were a good chance for U.S. sales of meat, poultry, and dairy products in the area under discussion. However, the relatively limited market for these products is currently supplied by European countries, which are able to undersell the United States because of their lower freight costs and export subsidies. In addition, the express policy of the north African countries, except Libya, is to move toward self-sufficiency in animal products, as well as other basic food and fiber requirements. In some cases they even prefer to restrict domestic consumption for the present time rather than divert further scarce foreign exchange resources from overall economic development.

Therefore, U.S. agricultural investments would not displace potential sales. Quite the contrary, investments in such areas as livestock production and feed manufacture could eventually improve our balance of payments by creating a market for breeding stock, various equipment and machinery, feed ingredients, and veterinary products. Hopefully, improvement in the livestock industry would be sufficient to result in increased demand for feedgrains.

For such investments, P.L. 480 private trade entity agreements might, in certain cases, be an effective tool. Direct U.S. investment and participation in joint ventures with local developers is already showing results in Morocco. Libya appears to offer promise for similar agricultural investments. Algeria and Tunisia, because of their present degree of socialization, might not be so receptive to this type of development, but they should not be overlooked entirely. Some specifics

on each of these countries—their livestock developments and feed situations—follow.

Morocco

Morocco's privately owned mixed-feed industry is the most important in north Africa even though it produces only 24,000 metric tons annually. With efforts underway to improve production of animal protein, much more feed could be absorbed. Production of this feed could utilize some of the substantial tonnage of beet pulp, oilseed cake, bran, and molasses that are exported, as well as domestic feedgrains and byproducts from the citrus, tomato, wine, and brewery industries, supplemented by imported feed ingredients. Domestic feedgrain production is not very large—some 240,000 tons of corn and 66,000 of sorghum and millet last year. Barley, an important grain crop with a cord production of 2.2 million tons last year, is used largely for food. Some corn and barley are even exported.

Development of the dairy industry focuses largely on improving herds through use of good breeding stock. In 1967, Morocco imported 400 heifers and 3 bulls, and in the following year, 480 heifers and 22 bulls. The Ministry of Agriculture's farm near Casablanca is importing 100 head of U.S. Holsteins, and dairy breeding stations are also stocked with German, French, and Dutch cattle. With greater production of better quality dairy products, Morocco hopes to reduce its substantial imports—over 25,000 tons in 1967.

The poultry industry offers another potential field for U.S. participation. Both poultry meat and egg production are growing rapidly in Morocco, as in other north African countries, with full encouragement of government authorities. About half the mixed feed currently used is for poultry. Poultry numbers continue to mount from chicks produced locally as well as those imported. Still, poultry meat is expensive compared to other meats.

A significant development in cattle raising is the recent establishment of a King Ranch in Morocco. Some 23 Santa Gertrudis bulls have been imported from Texas. The ranch not only will maintain a purebred herd of Santa Gertrudis cattle on its 88,000-acre spread, but also will attempt to breed up local cattle. This ranch might offer a good possibility for a joint U.S.-Moroccan project in feeding and fattening.

Tunisia

Tunisia has no private mixed-feed industry, just a 50-ton-per-day plant run by the Office of Cereals. This plant will soon be transferred to the Office of Livestock Development, which has plans for encouraging further livestock feeding. Feedgrain production is small—2,000 tons of corn, 3,000 of sorghum and millets in 1968. The 130,000 tons of barley produced was mostly for food. Last year, imports of feed-

grains included 785 tons of corn and 1,192 of sorghum. Barley imports totaled about 20,000 tons.

Future demand for feedgrains will depend on whether the government is able to initiate its planned livestock feeding programs. Historically, Tunisia's livestock industry has suffered heavily from recurring drought, the latest of these, in 1968-69, probably resulting in a one-third reduction in the country's cattle and sheep population. The government seized upon the occasion of the drought to formulate plans for a feeding program based on P.L. 480 feedgrains. Although this program has not yet been activated, the Tunisian Government hopes to expand and modernize all livestock operations—both meat and dairy. Dairy products are among the country's major imports. Livestock cooperatives have been organized throughout the country, with the greatest number in the southern part. A new Central Union for Livestock was also established recently, under which livestock marketing cooperatives will be set up in all major political subdivisions. A large, modern abattoir is nearing completion in Tunis, and modern methods are being adopted in poultry production. Some 20 percent of the 1969-72 development plan budget is earmarked for agriculture, largely for organizing and strengthening cooperatives.

With intentions to expand livestock production have come imports of breeding stock. In addition to the 200,000 baby chicks imported annually, Tunisia imports breeding cattle and sheep. The poultry industry now has some 6.9 million birds, 10 percent of them from imported stock. Cattle numbers total some 600,000 and sheep, 4.3 million.

Another factor that should influence the market for feeds is the rapid growth of tourism, with its accompanying demand for high-quality meats and dairy products.

These developments in Tunisia's economy point toward growing imports of feedgrains in the future.

Libya

Libya is a smaller potential market in terms of both its human population (1.6 million) and its livestock numbers. However, compared to the other Maghreb countries it is rich and strictly a cash market. As a result of oil production, per capita income has risen to over \$1,000, compared to about \$180 in Morocco and Tunisia. The policy of the Libyan Government is to put 70 percent of its income into economic development, and a good share of this is being devoted to agriculture. Despite the fact that farmers and ranchers are assisted by interest-free loans, subsidized feed and equipment costs, and domestic price supports above world levels, agricultural production has held relatively steady. Consequently, Libya imports increasing numbers of livestock each year, virtually all for slaughter.

Last year, livestock imports amounted to 18,591 live cattle, 442,789 sheep and lambs, and 8,144 goats. Domestic livestock numbers are estimated at about 100,000 head of cattle and 1.4 million each of sheep and goats. These animals are mostly held in the traditional manner by nomadic herdsman, a tradition that has led experts to conclude that the country is overgrazed.

Imports of meats are made difficult by various laws. For example, Moslem killing had been required for some time on all meat and poultry imports. Meat and animal product imports, including milk, still require a health certificate issued by the municipality where the factory processing the product is located, as well as certification by the Foreign Ministry

of the country of origin. This slows down procurement of foreign meats.

Nevertheless, meat consumption is increasing and must be supplied by ever-greater imports. For this reason, Libya appears to offer a good opportunity for investment in modern feedlot operations. The Libyan Government welcomes foreign investment and advisory services. Importing grains and feeds is relatively easy, and financing presents no difficulty. The government would very likely favor confined feeding operations as a means of increasing meat production with a minimum of pressure on available land resources.

Libya has two government feed plants just beginning operations near Tripoli and Benghazi. These plants should provide a market for imported ingredients. Domestic production of feedgrains is small—1,600 tons of corn and 1,200 of sorghum and millet last year. Production of barley is rather substantial—almost 100,000 tons last year. In 1968 the country imported small quantities of corn and other feedgrains and 14,876 metric tons of barley.

One of the most exciting agricultural developments in Libya today is the desert irrigation project being developed at the Kufra Oasis by an American oil company. (See *Foreign Agriculture*, July 14, 1969, p. 6.)

The discovery and tapping of immense quantities of underground water in the southeastern part of the country has permitted the cultivation of alfalfa under irrigation. Libya hopes to use the alfalfa in production of meat for shipment to its cities and oil camps. Some sorghum, sudangrass, and other forages are also under experimental cultivation. Next step in the project will be studies to determine what races of sheep and other animals will be most adaptable to Libyan conditions and most profitable in terms of the Libyan market. Several hundred sheep may be brought in this fall, and hopes are that marketings will build up to 400,000 head annually. Livestock projects of this type might well offer investment opportunities that could lead to larger feedgrain sales, as local production is not likely to fill requirements.

Algeria

Algeria has some 669,000 head of cattle, almost 5.8 million sheep, and 1.8 million goats. The country imports several thousand head of dairy and other cattle annually, and sometimes buys goats and sheep. In addition, it imports between one and two thousand tons of meat annually. Meat is nearly twice as expensive as in Morocco or Tunisia.

Algeria's principal problem in livestock raising is a need for more forage crops and facilities for fattening, the latter especially in areas where forage cannot be produced year round. With this need comes the requirement of feed ingredients. Feedgrain production last year consisted primarily of 8,000 tons of corn and 400,000 of barley. Cereal production generally has declined since the early 1960's. Algeria has no hybrid corn of its own; however, some American varieties have been tried with success. About 11,000 tons of corn and 36,000 of barley were imported in 1967, the latest year for which figures are available. Algeria's economy seems to be strengthening owing to revenues from oil, which should increase its ability to purchase the requisites to improve its livestock industry.

The general view

Many of the general observations regarding livestock in north Africa also apply to other developing countries in

Africa and the Middle East. Most developing countries outside the present tsetse fly belt have cattle and/or other livestock. Traditionally, these animals have been valued for the prestige their numbers bring to their owners, rather than for the quantity or quality of the meat they produced. This situation is bound to change.

Demand for meat, milk, and other livestock products is expanding, not only as a result of population growth, but also owing to increasing affluence and quality consciousness, particularly in the oil-rich countries. The latter can be looked upon as promising grain markets. Poultry production appears

to be gaining over an even wider area and offers a more immediate opportunity for increased feedgrain consumption.

Positive developments in livestock, poultry, and dairy production should be encouraged and followed up. There is considerable potential for further growth in animal production via the "feeding route." Undoubtedly, some of the developing countries could produce more of the feedgrains they will need, but very likely not all of them for some time. In addition, they will have increased pressure on available land as a result of population growth and higher living standards. Thus, it may very likely be more economical to import this feed.

Increased Grain Imports For Eastern Europe

Total 1969-70 grain import requirements for the three northern countries of Eastern Europe—Poland, East Germany, and Czechoslovakia—are estimated at 1.5 million to 2.0 million metric tons above the reduced level of 1968-69. Although imports by these countries have been declining, this year's poorer domestic feed situation could return imports to the 1967 level of 5.8 million tons.

Increased grain needs this year are the result of deterioration in the condition of potatoes, hay, pastures, and other forages which was caused by unfavorable weather during the summer. Precipitation averaged only 30 to 40 percent of the normal level in July and the first half of August, and temperatures were much above normal during this period. The situation improved after mid-August and the areas experienced cooler temperatures and some rainfall.

Grain production drops

Grain production in the three countries is estimated at about 31 million tons for 1969—down 1.5 million to 2.0 million tons from 1968, but better than in previous years. Production held up well in Czechoslovakia; Poland and East Germany are expected to show the major declines.

Potato production is estimated to be about 10 million tons lower than the 1967 and 1968 levels—or about 2.5 million tons on a grain-equivalent basis.

Since 1967, inventories of hogs—the principal meat-producing livestock in the area—have declined in Czechoslovakia and East Germany. Numbers dropped temporarily in Poland, but recovered by early 1969. Shortages of livestock products caused concern during the summer in Czechoslovakia, and a herd-rebuilding program is underway.

Because of some reserves from the 1968 crop and declines in livestock inventories, the increase in imports of feedgrains is not expected to match the decline from 1968 levels of feed production. Imports of oilcake and meal by these countries have exceeded one-half million tons in recent years and some growth is expected.

U.S. trade prospects

Direct U.S. sales of feedgrains, soybeans, and oilcake and meal to these countries were valued at \$59 million in calendar year 1968. In addition, transshipments of these commodities through Hamburg amounted to about \$22 million to East Germany and \$7 million to Czechoslovakia. Direct sales of these commodities declined to \$46 million during fiscal year 1969.

Despite the expected larger grain imports by Poland, East

1968 U.S. SALES OF FEEDSTUFFS TO POLAND, EAST GERMANY, CZECHOSLOVAKIA

Country	Feedgrains		Soybeans, oilcake, meal			
	1,000 metric tons	1,000 dollar million	1,000 metric tons	1,000 dollar million	1,000 metric tons	1,000 dollar million
Poland	359	17.4	57	5.6	95	9.1
East Germany	435	21.7	0	0	0	0
Czechoslovakia	64	3.4	4	0.4	13	1.1
Total	858	42.5	61	6.0	108	10.2

Germany, and Czechoslovakia, the United States may have difficulty in maintaining the 1968 level of grain sales to them because of strong price competition from the EC countries. France reportedly offered barley to Poland at 87 U.S. cents per bushel c.i.f., and a sale of about one-half million tons of EC feed wheat to Czechoslovakia was reportedly transacted at \$1.03 per bushel, f.o.b. In comparison, U.S. No. 3 Yellow corn was priced at \$1.39 per bushel, c.i.f. Rotterdam, on August 26. U.S. soybean meal apparently remains competitive with other sources of protein for poultry and hog feeds.

—By DAVID M. SCHOONOVER
Foreign Regional Analysis Division
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Turkish Wheat Supply Tight

Turkey's wheat harvest this year has been disappointing as a result of light yields, small kernels, plus the usual loss caused by the ancient threshing methods used by the vast majority of its farmers. While output still is expected to exceed last year's 8.4 million metric tons, the gap continues to narrow. The latest revised estimate puts production at 8.6 million tons, against an earlier estimate of 8.8 million. The crops of the last two seasons compare with output of 9 million tons in 1967.

Farmers and other people living in rural areas are not affected to a large extent by tight supplies since it is their custom to store at least a year's requirements for bread immediately following the harvest. The people most affected are urban dwellers, the army, and the TMO—the agency responsible for supplying wheat to the above consumers and for emergencies.

Total wheat supplies for 1969-70 are put at 10,149,000 tons, just slightly above the previous year's 9,867,000 because of the marginally larger crop and small increases in both beginning stocks and imports. This year's import needs are put at about 600,000 metric tons, compared to 1968-69 purchases of 553,000 tons.

South African Canned Fruit Claiming More Shelf Space In Europe's Supermarkets

By RICHARD B. SCHROETER
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"Packed in South Africa" is becoming an increasingly common label in the canned-fruit sections of European supermarkets. With a near-doubling of its combined production of canned peaches, pears, apricots, and mixed fruits in the last 10 years and a very small market at home, South Africa has attacked the export market aggressively.

At one time, South African exports of these canned fruits went mainly to the United Kingdom. Now, the factors that shaped the industry's trade patterns are changing, and with them the distribution of its shipments. The Commonwealth tariff preference that South Africa once enjoyed for its canned peaches and fruit cocktail in the U.K. market will be halved by 1972. Britain's devaluation 2 years ago has shaved canners' profit margins, and the constant threat of its joining the European Community further clouds the viability of that market for South African products. In addition, the industry faces further expansion in output of peaches and pears, with accompanying pressure to widen export markets. South Africa has met these challenges with an intensified campaign to move its products into other countries. The result: Exports of canned peaches alone to the EC jumped from 9,000 cases (basis 24 2½'s, 45 lb.) in 1958 to over 1 million last year; South Africa replaced the United States as Belgium's leading source and as West Germany's second major supplier; and South Africa now has its eye on Canada as another potentially large market.

Where it begins

Deciduous fruits for canning—principally peaches, pears, and apricots—are virtually all produced in Cape Province at the southernmost tip of Africa. The only major exception is cherries for fruit cocktail, which are grown in the Orange Free State. The climate in the western part of the Cape Province—where the bulk of the fruit originates—is characterized by temperate rainy winters and dry warm summers. Although rainfall averages 25 to 35 inches annually, irrigation is essential for economical production. Scarcity of water limits supplies available to farmers, so that irrigated orchard land is high priced. On completion of the Orange River Development Project, water will be available for irrigation of some 860,000 acres. This is expected to open up land for fruit production.

Peaches are by far the dominant canning fruit, accounting for about 60 percent of canners' total acquisitions. This year's deliveries to canners are estimated at 107,000 short tons, more than double the average of the mid- and late

1950's. Nearly all have been clingstones in recent years, as lack of popularity with canners and low grower prices have caused freestones to virtually disappear. Deliveries of pears have ranged between 36,000 and 40,000 tons in recent years, and those of apricots have fluctuated between 16,000 and 27,000 tons.

Area devoted to cling peaches and pears has been expanding continuously since 1952. In contrast, there has been a marked drop in the number of apricot and pear trees. However, the sharp expansionary phase in planting of cling peach trees appears to be abating somewhat. Stiff competition in world markets has placed increasing pressure on canners' profits; this is being reflected in grower prices. Growers are steadily turning toward fruits for the fresh market, especially apples, even though these more profitable crops are also feeling the pinch of competition. They are tending to reserve the better soils for production of fresh-market fruit and are planting clings on marginal land. Nevertheless, the heavy plantings through 1966 combined with improving yields are expected to cause a continued rise in production, and crops in excess of 120,000 tons can be expected in a short time.

Yields are still poor by U.S. standards despite the substantial progress that has been made. In 1967 cling peach yields averaged about 6 tons per acre, more than double the average in the early 1950's. Apricots increased in yield from a little over a ton to about 2½ tons; and pears, from 5 tons to 7 or 8.

The fortunate accident

The deciduous fruit canning industry owes much of its prominence to one clingstone peach, the Kakamas. A chance seedling of a Transvaal yellow peach, this one is a vigorous grower and has wide adaptability. It has a rich golden color when canned. From almost the beginning of the canning industry until the early 1960's, the Kakamas was by far the dominant canning peach. This resulted in a very short canning season of only 6 or 7 weeks. This span has been doubled with introduction of Kakamas-related varieties.

Over 90 percent of the pears processed by canners are of the Williams Bon Chretien variety, known in the United States as the Bartlett. It is generally harvested during a 3-week period in January or early February. Royal and Bulida are the major apricot varieties. A promising new variety, a cross between these two, may eventually rank high among apricots.

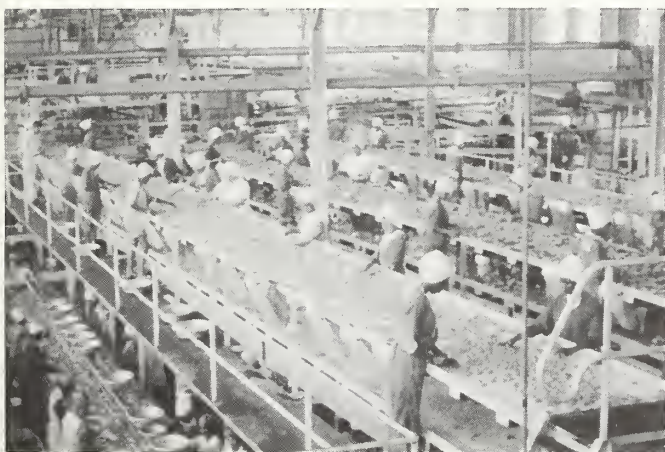
Harvesting of deciduous fruits for canning begins in late



Left, bins of peaches arrive at the cannery and are dumped. Above, an orchard of Kakamas peach trees, using the maypole propping system. Below, women sort and trim the peeled fruit.



Above, pickers dump their 30-pound bags of peaches into half-ton bins between rows of trees. Bins are moved by truck to canneries or receiving depots.



trol boards established by legislation to promote economic stability and improve the economic positions of growers. These are the Deciduous Fruit Board (DFB) and the Canning Apricot-Peach Board (CAPB).

The DFB controls the allocation of pears for processing and requires canners to purchase pears only through it or its authorized agents at prices negotiated by the canners and the Board. It also is the sole exporter of all fresh apricots, peaches, nectarines, plums, prunes, grapes, and apples produced in the Republic.

Under CAPB regulations, no producer of canning apricots or peaches in specified controlled districts in the Cape Province, which include virtually all of the producing area, may sell those fruits to canners unless he is registered with the Board. Likewise, no unregistered canner may can those fruits. The Board also fixes minimum grower prices, operates a program to divert substandard fruit from canneries, and conducts a local advertising campaign for canned peaches.

The aforementioned boards established grades for the fruits they regulate. In turn, these grades serve as bases for setting grower prices. Grading regulations have definitely improved the quality of the fruit delivered to canners. Last year, 84 percent of the peaches delivered rated as canning grade, 11 percent second grade, and only 5 percent undergrade. Prior to CAPB's enforcement of grading regulations, the quality of peaches purchased by canners tended to be below standards in the United States and Australia, especially in years of short crops, when canners in some instances completely disregarded or abused grading in their attempts to obtain more fruit.

The minimum grower prices established by CAPB for apricots and peaches are applicable to all canneries except the cooperative one. In 1968, prices for clings dropped sharply, reflecting such factors as large unsold stocks held by canners, losses resulting from devaluation of the British pound, and mounting competition in overseas markets. Grower prices averaged only \$59 per ton in 1968, compared with \$76 a year earlier and about \$72 in 1960-64. Apricot prices averaged \$60 in both 1968 and 1967, down \$11 from the 1960-64 average.

November and nears completion in March. Although there is substantial interest in mechanical harvesting, this is not in use at the present time. It would be particularly difficult to mechanically harvest Kakamas peaches, which require four or more pickings because of their spread in maturity. The bins of fruit are moved by truck either to canneries or to receiving depots. Hydrocooling is not used during transport.

Harvest workers are primarily local colored persons of mixed origin and the Bantu, who are descendants of various African tribes. In some areas, convict labor is used, under rehabilitation programs, to supplement the labor supply. Harvest workers are paid either by the bag or on a daily basis, getting an average of about 3 cents per 30-pound bag or 17 cents an hour. Employers also furnish housing. To encourage greater productivity, the trend is toward piece-work wages.

Insufficient data are available to determine average costs of production to growers of deciduous fruits. However, the University of Stellenbosch recently did a study of one large farm. For this farm, total production costs worked out to \$404.63 per acre, or \$43.70 per ton given a yield of 9.26 tons per acre. Another study comparing costs and incomes per acre for four fruits showed highest returns for apples, followed by pears, apricots, and canning peaches.

Boards regulate fruit sales

Sales of fruits to canners, as well as other operations involving fresh fruits for canning, are regulated by two con-

The DFB and canners negotiate pear prices annually. Payments to producers for Grade I Bon Chrétien pears averaged \$60 per ton in 1968, compared with \$80 a year earlier and between \$80 and \$90 in the late 1950's.

The canning is done by 14 companies with 18 plants close to the important producing districts. Over 95 percent of the canners are members of the South African Fruit and Vegetable Canners' Association. All the companies have a single plant except the cooperative, which has five. When the plants were built, the industry relied so heavily on the Kakamas peach that they were designed to accommodate a large volume of fruit within a short span of time. Although the length of the season has been expanded, considerable excess capacity remains, as evidenced by canners' demands for additional fruit. It is believed that the volume of fruit processed could be increased substantially without a large rise in capital outlays.

Canneries are well maintained but generally are not so well equipped with modern processing machinery as are the plants in California. Substantially more hand labor is involved in such operations as sorting, grading, and packing.

Almost all the raw materials used are of South African origin. Rebates on sugar used by canners in exported products are negotiated annually between the sugar industry and the Canners' Association to reduce sugar prices to a more competitive level vis-a-vis other producing countries. Early this year, the price to canners, excluding rebates, was quoted at \$168 per ton, f.o.b. Durban. Transportation and other costs of moving the sugar to the canneries added about \$22.

One of the most striking features of South Africa's fruit canneries is the labor intensiveness of their operations. Larger numbers of seasonal workers, especially women, are employed than in California canneries, reflecting the low wages paid. Also, canners report that the productivity of labor does not measure up to that in the United States, so that more people are needed to do equivalent work.

Minimum wages per 46-hour week are established by a Conciliation Board. These wages vary somewhat by district and currently range from US\$8.68-\$10.01 per week for women who trim the fruit to \$14.47-\$17.96 for male supervisors. Some piece-work wages also are paid, and overtime ranges from one and one-third to two times regular wages.

Canners pack fruits in the basic can sizes—A2½'s, A2's, A1's, and A10's. An 8-ounce picnic-sized can also is produced, both for export and for the local market. Approximately 90 percent of the pack goes into consumer-sized cans, primarily A2½'s and A1's.

Production, export trends

Of the principal products, only packs of canned apricots have failed to show an upward trend. The canned peach pack reached a high of 4.9 million cases in 1967, compared with less than 2.5 million before 1961. Although the pack has not exceeded that volume since 1967, it is expected to resume an upward trend and exceed 5.5 million cases within a few years. The 1969 volume was 4.8 million cases. The apricot pack was 591,000 cases last year, the smallest in over 10 years. Output of canned pears tripled from 490,000 cases in 1958 to nearly 1.5 million in 1966. Fruit cocktail, a fairly recent addition to canners' lines, has also proved very popular. The 1969 pack is estimated at over 900,000 cases, compared with only 48,000 in 1962.

Canned fruits are subject to mandatory inspection and grad-

ing by government inspectors. Grapes used are fancy, choice, standard, and substandard. In general, they compare favorably with U.S. grades. Over half the sales of canned peaches to the United Kingdom from December 1967 through October 1968 consisted of the fancy grade. Substandard peaches are sold both on the local market and in continental Europe. The volume packed under this grade is reported to have decreased since the canning of undergrade fruit was prohibited.

About 90 percent of the canned fruit produced moves into the export market. Much of this reliance on exports stems from the inability of a high percentage of South Africa's population to afford the luxury of canned goods. Per capita consumption of canned peaches is only about 1 pound per year, far below the average in the United States and Europe. No substantial gains are envisioned in the foreseeable future, so that reliance on the export market is expected to continue.

Total exports of canned peaches, pears, apricots, and mixed fruits last year were 7.5 million cases, compared with just 3 million in 1958. Of this, 4.8 million were canned peaches, against 1.9 million in 1968; 3.2 million went to the United Kingdom alone. Apricot exports amounted to 614,000 cases, against 535,000 in 1958. Those of pears totaled 1.2 million, compared with 383,000; and shipments of mixed fruits were 858,000 cases, against 203,000.

Aggressive internal competition

Because of its dependence on exports, South Africa's canned fruit industry is characterized at times by aggressive internal competition, particularly during those periods when sales are lagging. In attempts to promote stability, the industry occasionally has initiated either voluntary or legal controls over minimum prices and conditions of sale in the United Kingdom. These arrangements have not been very successful, primarily because they have been inadequate for dealing quickly with overseas supply/demand fluctuations.

Lack of success with these controls led to the establishment in 1967 of the South African Canned Fruit Export Board. No person may export canned fruit without a license from the Board. It has the power to determine minimum prices and the terms and conditions of export sales. So far, it has applied this power only to sales of consumer-sized cans to the United Kingdom. Although these controls have worked satisfactorily to date, the test will come if and when the market weakens and stocks build up. As in previous control attempts, no provisions exist for alleviating problems associated with such market conditions.

The canned fruit industry had been free of direct government subsidies until this year, when canners received compensation of over \$1.5 million to help them offset their losses resulting from devaluation of the British pound. No further compensation is anticipated.

Despite losses associated with the United Kingdom's devaluation as well as lowering of the Commonwealth tariff preference, South Africa maintains its ability to compete in export markets. This is largely because of its low labor costs. These costs show no signs of any appreciable increases in the near future. Prices paid to producers—which constitute about 20 percent of the final product price—are also rather low. In addition, the country has so far proved itself able to assure foreign buyers adequate supplies. With anticipated increases in production, South Africa most certainly will continue as a formidable competitor in the canned fruit market.

French Post-Devaluation Dairy-Trade Price Adjustments

Following the decision by the European Community (EC) of August 11, 1969, to temporarily insulate the French agricultural market (see *Foreign Agriculture*, Sept. 8, 1969), the EC Commission issued a series of implementing regulations adjusting French agricultural prices, which, as a result of devaluation of the franc, became 11.11 percent lower than EC prices. These regulations, effective August 25 but retroactive to August 11, are applicable to trade with member and non-member countries alike.

Below is the second in a series of reports of the regulations. Reporter is John F. Hudson, on the scene in Brussels, Belgium, where he is Assistant Agricultural Attaché with the U.S. Mission to the European Communities.

Community regulations provide for a variety of support measures for skim milk, butter, and Italian cheese—in which payments or price levels are specified in terms of the unit of account, which is worth one U.S. dollar.

The 11.11-percent devaluation of the French franc meant that these payments or prime levels automatically increased by 12.5 percent in terms of French francs. France elected, however, to permit a portion of the increase only in the case of skim milk and products made from it.

Domestic prices lower now

Since France elected not to change the butter price and to raise only partially the skim milk price, French domestic prices are now lower, in terms of other currencies, than they were before devaluation. This situation is complicated, however, by the fact that the European Community's market for dairy products is not unified, and before devaluation French prices were higher than those in some other Common Market countries. For that reason France was paying an extra export subsidy and collecting an extra import tax on trade in some dairy products.

The net effect of devaluation on intervention (support) prices for powdered skim milk and butter—the principal products involved—per 100 kilograms (220.46 pounds) is shown in the table below.

DAIRY INTERVENTION PRICES BEFORE AND AFTER DEVALUATION¹
[Per 100 kilograms]

Product	Before devaluation		After devaluation	
	"Common" price	French price	"Common" price	French price
Powdered skim milk	\$ 41.25	\$ 44.00	\$ 41.25	\$ 41.25
	(18.71)	(19.96)	(18.71)	(18.71)
Butter	173.50	176.00	173.50	156.42
	(78.70)	(78.83)	(78.70)	(70.95)

¹ Figures in parentheses show equivalent U.S. cents per pound.

Since the French intervention price level for powdered skim milk is now equal to the "common" price, France has now simply eliminated the extra export subsidy and import tax previously paid on this product. There will be no new export tax or import subsidy.

For butter, however, France must eliminate the extra export subsidy and import tax and now apply an export tax and import subsidy to equalize prices. The export tax and import

subsidy are equal, fixed at the equivalent of \$16.83 per 100 kilograms, calculated as follows:

Change in French intervention price . . \$19.58 (8.88 cents in terms of units of account. . . per pound)
Less predevaluation differential between French and "common" intervention price. . . 2.75 (1.25 cents per pound)

Butter tax-subsidy 16.83 (7.63 cents per pound)

From the butter tax-subsidy, the Commission derived tax-subsidy rates for other dairy products on the basis of their butterfat content, threshold price relationships, differences in price levels between France and other Member States—rounding the calculations as necessary. The exact formulas used to make these calculations are so complicated that only the Commission official who worked them out is acknowledged to be able to explain them.

However, several generalizations can be made. Where the butterfat content is very small, there may be no tax-subsidy. For some products it was deemed necessary to vary the tax subsidy rate in proportion to changes in fat content as small as 1 percent. There is a differentiation between products containing up to 40 percent butterfat and those containing more; for the latter, the tax-subsidy rate is higher.

Finally, for all cheeses and a very few other products, the Commission considered that a supplementary tax-subsidy is required to prevent diversion of trade arising from differences in Member State price levels. For the products covered, the supplementary import subsidy and export tax applies to products of Belgian, Luxembourg, or Italian origin imported for consumption or for re-export by France.

Export tax waivers

The export tax is waived for butter sold from storage at reduced prices under various special disposal programs.

The export tax is also waived for powdered skim milk intended for the manufacture of mixed feed for pigs and poultry. This waiver appears at first glance to be redundant since there is no export tax on powdered skim milk. However, the tax was waived originally because it was offset by the corrective applied to balance the French price with the "common" price. The corrective was eliminated and the tax waived. For powdered skim milk for pig and poultry feed a special price applies, and there was no corrective to eliminate. Therefore, it may have been appropriate to reaffirm the inapplicability of the export tax.

For powdered skim milk for calf feeding, the dairy regulation provided a direct subsidy of \$11.00 per 100 kilograms (about 5 cents per pound). This has been diminished by about \$1.52 (about 0.7 cent per pound). There is also a direct subsidy for powdered skim milk for the manufacture of casein. This subsidy is adjusted in units of account by the elimination of the intra-Community price corrective. Various surties and other sums figuring in the dairy regulations were held unchanged in francs. The unit of account equivalent is therefore adjusted downward 11.11 percent.

Finally, since the price correctives previously applicable in trade between France and the rest of the Community have been taken into account in the fixing of export taxes and import subsidies, the old correctives are abolished for France.

Although much work and research have already been expended on increasing rice production in west Africa, the step outlined below may be the breakthrough that enables indigenous supplies to catch up with rising consumer demand.

Something New in Rice Under the West African Sun

Thirteen west African countries, encouraged by the participation of six international organizations, two private foundations, and five developed countries, met in Monrovia, Liberia, September 1-3, 1969, and took the first step to form a regional rice organization at the West Africa Rice Development Conference.

Tentatively called the West African Rice Development Association (WARDA), the new body would act as a coordinator of present rice projects in west African countries, would establish a research center of its own and related training programs, and would try more effective techniques of telling farmers of improved rice cultivation.

The thirteen west African countries, whose governments must now approve their participation in WARDA, are: Dahomey, The Gambia, Ghana, Guinea, the Ivory Coast, Liberia, Mali, Niger, Nigeria, Senegal, Sierra Leone, Togo, and Upper Volta.

The countries who may in the future help fund WARDA and who are already providing assistance to rice cultivation and research in west Africa, are: the Republic of China, France, the United Kingdom, and the United States. The Netherlands, who is not now backing rice projects in west Africa, has indicated definite intent to support the Association. Other countries that have expressed interest in assisting WARDA's efforts are Sweden and Canada.

The two private foundations who had representatives attend the WARDA organizational meetings are the Ford Foundation and the Rockefeller Foundation.

The six international organizations represented at the inception of WARDA were: the African Development Bank, the Economic Commission for Africa, the European Development Fund (FED), the International Bank for Reconstruction and Development (IBRD), and the Development Fund (DP) and the Food and Agriculture Organization (FAO), both agencies of the United Nations.

Rice situation in west Africa

At present rice production in west Africa from Senegal in the west to Nigeria and Niger in the east is about 400,000 tons less than demand each year. The difference is made up with imports, worth over \$50 million a year. All the countries who would participate in WARDA now grow rice—but none has succeeded in reaching rice self-sufficiency.

West Africa's rice situation is further complicated by the growing demand for rice as personal incomes rise with the economic development of the area. The rice gap, despite a number of rice projects already functioning and increasing production, could become even greater in the future. Area countries feel that foreign exchange being expended upon rice imports could instead be used to obtain capital equipment required in their development efforts.

Groundwork for a breakthrough

Several international organizations, private foundations, and donor countries already engaged in encouraging agricul-

tural development in Africa have met over the past 2 years to discuss ways and means of reaching a rice-production breakthrough in west Africa.

The U.S. Agency for International Development (USAID), utilizing U.S. Department of Agriculture personnel, prepared background for deliberations by carrying out a survey during 1968 entitled *Rice in West Africa*. In one document the rice research programs, productions, marketing systems, farm extension practices, and requirements of 11 west African countries were summarized.

Study of the rice survey made clear the need for coordinated action by west African countries and donor countries and agencies. It was agreed that a regional organization fully supported by the African countries involved would be the best vehicle for carrying out programs of rice research, extension, and education. Especially active in promoting acceptance of the idea of regional rice cooperation were the Economic Commission for Africa and the FAO and DP of the United Nations. Backers of the concept included USAID, the Ford and Rockefeller Foundations, the IBRD, the African Development Bank, and the Republic of China, the Netherlands, Sweden, and Canada.

The thinking behind support for the regional organization was summed up in an address during the West African Rice Development Conference at Monrovia by R. K. A. Gardiner of the Economic Commission for Africa. He said, "In view of the high cost of agricultural research, which no individual African country can afford, and the paucity of highly trained agricultural scientists, I believe the pooling of resources, both human and financial, backed by strong support from the west African governments, is one of the principal factors that will play a role in helping to solve west Africa's rice problem."

Conference accomplishments

In a 3-day session at Monrovia, the Conference reached agreement on all points discussed. To implement the decision to form WARDA, the Conference decided on WARDA membership qualifications (any west African country is eligible, other African countries can become members, and non-African countries and corporate bodies can become Associates, or nonvoting members), areas of concentration of work by WARDA, interim advisory committees and operating officers, guidelines for a draft constitution, financial arrangements for initial operations, and the criteria for choosing a site for a rice development center for the region. The Conference also outlined the tasks to be carried out before the next WARDA meeting, to be held within 6 months.

Attempts in the past to organize cooperative economic activities among west African countries have usually failed because of lack of interest, lack of finances, or lack of external assistance. But with interest high in west Africa in increasing rice production and the stated support of many organizations and developed countries, WARDA's chances of success seem good.

—Based on dispatch from GERALD W. SHELDEN
U.S. Agricultural Attaché, Monrovia

Algeria's Developing Textile Industry

By GUY A. W. SCHILLING
Cotton Division, FAS

From August 1968 through July 1969, 27,465 bales of U.S. cotton were exported to Algeria—a record figure considerably higher than in the years immediately preceding as indicated in the table below. These larger imports from the United States plus imports from the USSR, Chad, and several other cotton-exporting countries are evidence of Algeria's move to develop its domestic cotton-textile industry.

Other predominant imports from the United States are wheat, machinery, and transport equipment. The outlook for increased sales of U.S. goods is improving as Algerians seek to diversify sources of supply to replace dependence on French products. This could mean larger purchases of U.S. cotton. Rising foreign exchange earnings from expanding sales of petroleum and natural gas will accelerate this general trend.

In 1967, Algeria had about 178,000 spindles and 6,000 looms in its textile industry, according to the International Federation of Cotton and Allied Textile Industries. The same source reported that fiber consumption in 1967 consisted of about 27,600 bales of cotton and 1,500 metric tons of rayon staple; no consumption of synthetic fibers was reported. The indicated value of fibers consumed per spindle is rather low, but this could be attributed to a number of factors, such as new mills just beginning operations and inexperienced personnel.

Until domestic cotton production expands, Algeria's textile industry must import nearly all the raw cotton it uses. Today, domestic cotton production amounts to only about 4,000 bales annually. Apparently, about half of this, which is believed to be extra-long staple cotton, is exported.

Since 1966, the building up of the Algerian cotton textile industry has been under the direction of the Société Nationale des Industries Textiles (SONITEX), an organization created in that year by government order.

Planned growth

Little is known about the spindleage and number of looms in Algeria before it became independent from France in 1962. But apparently the country imported most of its yarn,

cloth, finished goods, and garments from France. Although there were some textile mills in the country before 1963, in general the textile sector had an artisan character.

After independence, Algeria's textile industry—like all its key industries—was nationalized. In 1963 a plan of industrialization was established. This plan was aimed mainly at building a very diversified textile industry that would make the country less dependent on imported textiles, particularly those from France. According to the plan, the first steps necessary in developing the industry were: (1) building basic facilities to handle textile fibers—both animal and vegetable; and (2) constructing finishing and garment manufacturing plants. The plan calls for the establishment of 22 factories for garment manufacture, supplied with imported fabrics to take care of national demand until large textile complexes can be developed.

By 1965, Algeria was still importing about \$10 million worth of yarn and cloth.

Role of SONITEX

SONITEX operates with capital supplied by the government and is under the jurisdiction of the Ministry of Industry. The country's textile mills have been united under its authority. The object of this unification is the better management and exploitation of the industry in order to obtain the production best suited to the country's needs.

SONITEX, which is headquartered in Algiers, is operated like a company; it is controlled by a "committee" that is headed by a president. Each mill or factory under SONITEX control has its own director. Although SONITEX mills and factories are located in all parts of the country, most of them are close to the coast.

Mills grouped together under SONITEX include both those that were foreign owned before Algerian independence and the new ones that have been built under the 1963 plan of industrialization. SONITEX also plans to build new units. The new mills have modern equipment adapted to working with synthetic fibers and all fiber blends as well as with raw cotton.

Four new mills were brought into production in 1967, according to a report in the January 1968 issue of *Europe-France-Outremer Magazine*. The reported locations and financing for the new mills were:

Draa-Ben-Khedda, aid from United Arab Republic;
El-Kerma, aid from Yugoslavia;
Chaabet-er-Kassas, aid from France and technical assistance from a French mill-machinery firm; and
Batna, aid from Bulgaria.

In cooperation with the Algerian Department of General Administration, SONITEX has established a training program in textile enterprises. Applicants for the training are tested, and those who score highest receive the training from textile enterprises in Bou-Merdes or abroad in Yugoslavia, France, or Germany. Those who complete the training are assured of a job in the Algerian textile industry. These young, trained Algerians are gradually replacing the foreign technicians that were recruited to give technical assistance when the mills were first opened.

SONITEX purchases all raw materials for Algerian mills.

ALGERIA: RAW COTTON IMPORTS, 1964-67

Origin	Calendar years			
	1964	1965	1966	1967
	Bales ¹	Bales ¹	Bales ¹	Bales ¹
Cameroon	221	0	0	670
Chad	0	3,148	670	0
France	22	35	723	23
Japan	0	13	0	0
Mexico	101	864	445	0
Nigeria	0	0	401	0
Spain	0	9	0	0
Turkey	0	309	0	0
United Arab Republic	0	0	2,941	4,356
United States	2,302	1,138	1,460	221
USSR	0	0	0	4,515
Upper Volta	0	0	0	1,323
Total	2,646	5,516	6,640	11,107

¹ 480 pounds net.

Source: Documents Statistiques du Commerce de l'Algérie.

Current cotton imports are probably financed largely through bilateral trade agreements or barter arrangements with socialist countries, and through hard currency with other countries, since the financial position of Algeria is "good" this year.

About Algeria in general

The following facts about Algeria will help give a general picture of the economic situation in that country as it relates to cotton use or cotton imports.

Total area of the country is about 916,988 square miles of which 165,058 are usable for agriculture. Population, which was about 12.5 million in 1968, is increasing by 2.8 percent a year; it should reach 20 million by 1985.

Although petroleum is the most important product of the

country, agriculture maintains an important place in the economy; most important farm products are cereals, wine, dates, olives, citrus fruits, and livestock.

Unemployment is widespread, but there are shortages of skilled labor. In 1966, 65,000 foreigners—most of them from Europe—worked in Algeria. More than half of the working population is engaged in agriculture.

Imports are limited to items essential for domestic consumption or economic development. Bilateral trade agreements predominate, and most of these are with socialist countries. A preferential tariff system favors France and, to a lesser degree, the other countries of the European Community. Main imports are: Foodstuff, machinery, transport equipment, and textiles.

Canadian Study Forecasts Agriculture in 1980

The Canada Department of Agriculture (CDA) recently released a study of trends that have developed in the country's agriculture during the past 20 years with projections to 1980. The report stated that efforts have to be directed towards increasing the managerial abilities of farmers because the larger, increasingly specialized farms of the future will have to be run more efficiently. New emphasis will be given to exports of oilseeds, fruits, vegetables, and tobacco along with beef and dairy cattle.

Three agricultural economists prepared the study, entitled "Expected Patterns and Practices in Agriculture in 1980" and published in *Canadian Farm Economics* in August 1969; they are Dr. G. R. Purnell, Director General of the CDA Economics Branch, and two staff members, Dr. A. B. Andarawewa and R. A. Stutt.

A draft of the future

In general, as Canada's population and food-production efficiency increase, agriculture will decrease in relative importance. Specifically, the trend projections to 1980 show that:

- Canada's population and food production will increase by about 30 percent. Agriculture will decline in relative importance in the Canadian economy: In 1966, about 10 percent of the population lived on farms; by 1980 this will drop to 6 percent. In 1967 about 5 percent of Canada's Gross National Product came from the agriculture industry; in 1980 this will be about 3 percent. The agricultural labor force will decline from 559,000 (7.6 percent of total labor) in 1967 to about 386,000 (4 percent) in 1980 with the percentage of part-time farmers continuing to increase.
- Canadians will be spending less of their dollar on food: about 18 percent in 1980, instead of the current 20 percent. They will be buying more convenience foods, requiring more packaging, processing, and freezing. A shift to higher value foods such as meats and fruits and vegetables will also occur.
- Farmers will put about 61 percent of their money into capital investment (it is currently about 54 percent). The average farm will have a capital investment of around Can\$90,000 in real estate, machinery, and livestock.
- There will be about 315,000 farms, with a trend to bigger and more specialized operations. This trend towards specialization will apply to regions in Canada as well as to individual farms. Vertical integration will not become a threat because it will not increase in relative importance. The family farm

will continue to be the dominant farm organization, but more things will be rented, including land, custom work, and services such as spraying, dusting, and fertilizing. By 1980, farmers will be using more complex machinery, purchasing a larger proportion of farm inputs from nonfarm sources, and in general running a fairly complicated business organization. These developments will require that in addition to technical know-how, farmers have a knowledge of financial analysis, law, programming, and budgeting.

Agricultural volume

- Physical volume of agricultural exports will increase about 40 percent, with oilseeds, fruit and vegetables, tobacco, feeder cattle, high-quality dairy cattle, and meat capturing a bigger share of Canada's export trade. Grain, grain products, and dairy products will drop in relative importance.
- Rapeseed production will double and flaxseed production, increase 40 percent. The number of dairy cattle will decrease, as milk production per cow increases. The dairy industry will concentrate around the larger cities, with Quebec continuing to develop as Canada's largest milk-producing area. Alberta and British Columbia will show the biggest growth in the cattle industry. The industry will need 52 percent more beef cattle, 40 percent more hogs, 69 percent more poultry for meat, 5 percent fewer hens for laying, and 17 percent fewer cows to milk.
- There will be about 30 percent more feedgrains grown; half of these grains will be corn and barley, with corn production increasing 120 percent. If the current trend continues, farmers will produce about 868 million bushels of wheat annually, about 87 million more than can be used in Canada or exported. However, there are recent indications that this trend is changing, and a glut will not develop to this extent. Coarse grain production will reach 1 billion bushels.

Dr. Purnell cautions that "it's rather risky to merely push these trends into the future without being able to take into account possible changes in a number of areas, such as the world economy as a whole, research developments, changes in governments' programs and policies, and in the international supply, demand, and trade situation." On the other hand, Dr. Andarawewa points out that "by projecting current trends into the future, we can obtain some valuable impressions that may help the Canadian agricultural industry."

—Based on dispatch from EUGENE T. OLSON
U.S. Agricultural Attaché, Ottawa

U.S. Specialists Judge Foreign Livestock Shows

By CLAUDE E. DOBBINS
*Livestock and Meat Products Division
Foreign Agricultural Service*

Foreign livestock breed associations for the last decade or more have been putting out calls for U.S. animal specialists to judge and beribbon competitors at national livestock shows. Sister U.S. breed associations—with the help of the Foreign Agricultural Service—have answered the calls by “exporting” some 15-20 judges a year. Almost all have gone to Latin America, some to two or more shows.

Thus far in 1969 judges have gone out to shows in Mexico, Ecuador, Guatemala, Costa Rica, Brazil, El Salvador, Peru, and Colombia. In other years the list has included Honduras, Venezuela, Uruguay, and South Africa. In the remaining months of 1969 judges will go to the Arequipa Livestock Show (Sept. 21-28) and the Piura Show (Dec. 3-6) in Peru, the Chilean National Livestock Show in Santiago (Oct. 10-11), the Guayaquil Livestock Show (Oct. 8) and the Cuenca Fair (Nov. 3-9) in Ecuador.

Why they are invited

American judges are in demand because they are the best authorities available on animals bred from U.S. stock. Also, foreign livestockmen often appreciate the prestige their presence adds to the entire show. American breed associations are benefiting, too, from having a firsthand spokesman for U.S. breeding stock mixing with potential buyers.

Most active cosponsors of judges include the American Jersey Cattle Club, Holstein-Friesian Association of America, American Quarter Horse Association, American Brahman Breeders Association, American International Charolais Association, American Guernsey Cattle Club, Santa Gertrudis Breeders International, and the Brown Swiss Association. All have a large stake in exports of breeding animals.

It is difficult to pinpoint exactly when U.S. judges began participating in foreign livestock shows since many have gone informally on their own by direct invitation. The Foreign Agricultural Service and the livestock breed associations have cooperated in supplying judges since the 1950's.

When a foreign breed association wishes to contract a U.S. judge for an

exhibit its secretary may ask help from the U.S. agricultural attaché in the country. In many cases, show sponsors will ask for a particular man they have either had before or have seen judging somewhere else. The attaché then contacts FAS/Washington which works with U.S. breed associations to arrange for a judge to be sent.

Fulfilling all the requests for judges has turned into somewhat of a problem for U.S. breeder associations. It is often difficult to find a man who is both fully qualified to judge and has the time to attend. University faculty members have been particularly cooperative, and many judges have come from the staffs of the University of Florida, Louisiana State University, Texas A. and M. University, Kansas State University, University of Wisconsin, Texas Technological University and other schools. FAS pays a judge's transportation and the breed association pays hotel and miscellaneous expenses as well as travel costs within the United States.

Full itinerary

Once in the host country, the invited judge is formally greeted at lunches and receptions and meets with officials of the breed association and of the livestock exhibition and some of the country's cattle producers. At the livestock show he performs his judge's duties looking over competing animals and awarding ribbons to those which conform most closely to true types of the breed. The animal's

style, body conformation to breed characteristics, coloring, markings, and stance are all considered.

A good judge must also be a good diplomat, especially at the Latin American livestock shows, which professional jealousies have made so highly competitive. U.S. livestock judge Bob Tate had his diplomacy tested not long ago while judging beef cattle at the Medellín livestock show in Colombia. After he had finished the judging he was confronted by some owners of unrribboned animals demanding to know why their entries had not won prizes. After Tate detailed the decisive factors in selecting the winners, the participants thanked him for this frankness and for pointing out criteria of which they were not aware. Tate has since been invited back to judge several more of the Medellín shows.

After a judge's official duties in the judging ring are completed, he often visits farms and breeding ranches around the country, discussing with local ranchers the quality and types of animals they have and some of the new breeding, management, and nutritional practices being used with their type of animal. Here, too, is his opportunity to speak on behalf of U.S. breeding stock.

U.S. livestock judges are sometimes asked by local ranchers to classify qualifying animals as true breed types. Even in countries where classification is not a common practice, a good classification improves an animal's selling price and breeding value.

Below, W. L. Stangel judging at the Valencia, Venezuela, Livestock Show. FAS and the American Brahman Breeders Association sponsored Stangel's participation.



CROPS AND MARKETS SHORTS

Weekly Report on Rotterdam Grain Prices

Current prices for imported grain at Rotterdam, the Netherlands, compared with a week earlier and a year ago, are as follows:

Item	Sept. 23	Change from previous week		A year ago
		Dol. per bu.	Cents per bu.	
Wheat:				
Canadian No. 2 Manitoba . . .	1.90	+2		2.03
USSR SKS-14	1.76	+2		(¹)
Australian Prime Hard	1.82	0		(¹)
U.S. No. 2 Dark Northern				
Spring:				
14 percent	1.78	0		1.94
15 percent	1.89	+1		1.99
U.S. No. 2 Hard Winter:				
13.5 percent	1.74	-2		1.90
Argentine	(¹)	(¹)		1.82
U.S. No. 2 Soft Red Winter .	1.58	0		1.79
Feedgrains:				
U.S. No. 3 Yellow corn	1.37	-3		1.19
Argentine Plate corn	1.75	-3		1.37
U.S. No. 2 sorghum	1.41	-6		1.23
Argentine-Granifero	1.49	-1		1.23
Soybeans:				
U.S. No. 2 Yellow soybeans . .	2.78	0		2.86

¹ Not quoted.

Note: All quoted c.i.f. Rotterdam for 30- to 60-day delivery.

July Grain Stocks Up

Stocks of wheat, barley, oats, and corn in the four principal grain exporting countries on July 1, 1969, totaled 136.1 million metric tons, 17 percent higher than a year earlier, according to the Foreign Agricultural Service.

Grain stocks gained 9 percent in the United States, 28 percent in Canada, and 150 percent in Australia, but were 18 percent lower in Argentina.

A detailed table and analysis appeared in the September *World Agricultural Production and Trade—Statistical Report*.

World Production of Barley, Oats Rises

World barley production in 1969 is estimated to be a record 113.7 million metric tons, 3 percent above the 1968 high, according to the Foreign Agricultural Service. Barley acreage continued its long uptrend to 173.1 million acres, rising 5 percent. Canada provided the principal production gain, with crops in Europe and the Soviet Union indicated as rising slightly.

World oat production is estimated at 51.4 million tons, 1 percent over 1968; acreage increased 3 percent. Canada, the United States, and the Soviet Union showed gains, but the

European harvest was off 5 percent.

Detailed tables and analyses appeared in the September *World Agricultural Production and Trade—Statistical Report*.

Major Canadian Wheat Sale to Philippines

The Canadian Wheat Board has concluded an arrangement with Philippine flour millers providing for the sale of 150,000 tons of Canadian wheat. This represents about one-fourth of the total market and is a big gain for Canada, which has accounted for less than 3 percent of Philippine purchases in the past 3 years. The contract reportedly provides for liberal credit terms and for a price level which discounts prices currently "posted" by the Canadian Wheat Board.

In the past 3 years, U.S. exports of wheat and wheat flour (mostly wheat) to the Philippines averaged 537,000 metric tons, all for dollars, making it our fourth largest cash market.

Action To Bolster Sugar Prices

The International Sugar Organization has taken action under the provisions of the 1968 International Sugar Agreement to strengthen sagging world sugar prices. Effective August 28, and as long as the prevailing price is below 3.25 cents a pound, the following provisions will apply: (1) A prohibition on all imports, by members of the Agreement, from nonmembers; (2) a total ban on any redistribution of shortfalls; and (3) an increase in the powers of the International Sugar Council to reduce quotas in effect.

World sugar prices reached 4.00 cents per pound in April and after some decline reached 4.08 cents by mid-June. Then, there was a gradual decline to 3.50 cents by the first of August and a fast drop to 2.70 cents by August 26. Ample supplies in consuming countries and available sugar for export in producing countries are given as the reasons for lower prices. However, the announcement of the above ISO actions immediately triggered some world price increases.

Coffee Quotas Set

The International Coffee Organization (ICO) concluded its Council meetings in London the last week in August. The ICO agreed to a global export quota, under the International Coffee Agreement, of 46 million bags for 1969-70 (October-September), with a reserve quota of 2 million bags. It also added 1.5 U.S. cents to the floor and ceiling prices which trigger the upward and downward quota adjustments under the selectivity system.

The reserve of 2 million bags would be distributed in each of the last three quarters if the composite price of all four

types of coffee (Colombian milds, other milds, unwashed Arabicas, and Robustas) remains above trigger prices of 38.67, 39.67, and 40.67 cents for specific periods during the first, second, and third quarters, respectively. If the composite price of the four types falls below 36.67 cents, reductions of 2 million bags in three quota cuts will be made.

Indian Cigarette Consumption Rises

Sales of cigarettes in India are estimated to have increased to a record 60 billion pieces in calendar 1968, 6 billion more than in 1967. This increase, which boosted per capita consumption of cigarettes from 106 in 1967 to 114 in 1968, occurred despite the increased cigarette prices from higher government taxes.

Smokers in India can now choose from among 128 brands of cigarettes, both plain and filter-tipped, manufactured by the indigenous cigarette industry.

Iranian Pistachio Crop Down

Iran's 1969 pistachio crop, a cyclical crop, is forecast at 7,500 short tons in-shell basis, 56 percent below 1968's record 17,000 tons. Better quality is expected this year because of timely pest control and reduced fruit production. Exporters are currently quoting f.o.b. prices ranging between 63.5-65.8 cents per pound, compared with 56.7-59.0 cents per pound in 1968.

During the first 7 months of the 1968-69 marketing season, exports of unshelled and shelled pistachios totaled 6,433 and 96 short tons respectively. This compares to the 1967-68 season totals of 3,503 and 86 tons respectively. The United States is Iran's biggest pistachio customer.

IRAN'S PISTACHIO SUPPLY AND DISTRIBUTION
[In-shell basis]

Item	1965-66	1966-67	1967-68	1968-69
	1,000	1,000	1,000	1,000
	short	short	short	short
	tons	tons	tons	tons
Beginning stocks (Sept. 23)	0	0	3.3	1.1
Production	8.3	16.5	4.4	17.0
Total supply	8.3	16.5	7.7	18.1
Exports	6.6	9.8	3.6	9.4
Domestic disappearance ...	1.7	3.4	3.0	3.7
Ending stocks (Sept. 22) ..	0	3.3	1.1	5.0
Total distribution	8.3	16.5	7.7	18.1

French Prune Pack Up

Indications are that the 1969-70 French prune pack will set another record—21,000 short tons, 31 percent above last year's record 16,000. Quality is expected to only be fair, with fruit primarily in smaller sizes.

This is France's fourth straight record prune pack, the result of recent plantings coming into production. The trade believes output could reach 27,000 tons in the near future.

Poor Potato Crop in Sweden

According to a recent report from the Agricultural Attaché in Stockholm, the Swedish potato crop will be the lowest of record since World War II. The 1969 crop has been officially estimated at 844,000 tons compared with an average of about 1.8 million tons.

Normal use of potatoes for food and processing requires 950,000 tons. The remainder of the crop is used for livestock feed or is lost to waste. Substantial imports and high prices are anticipated because consumption is not expected to decline.

Trade opportunities for U.S. potatoes are possible if economic conditions warrant and if U.S. fresh potatoes can meet the rigid Swedish plant quarantine requirements. Sweden will accept State certificates, so interested growers should check with State plant quarantine officials to see if their potatoes could meet Swedish requirements. Processed potatoes can be imported freely.

Smaller Greek Dried Fruit Pack

The 1969 Greek pack of dried fruit is down from the 1968 level, owing to lower production of sultana raisins. The raisin crop is now estimated at 86,000 short tons compared with 105,000 tons in 1968. Smaller fruit size due to hot weather in May is blamed for much of the reduction. The current harvest is estimated at 99,000 tons, almost the same as last year's 101,000-ton output. Fig production rose from 26,400 tons in 1968 to 28,000 this year, but the quality of this year's figs was greatly reduced by late rains in production areas.

1968-69 exports of Greek raisins are now estimated at a record 90,000 short tons—an increase of 29 percent from the February forecast and 57 percent above 1967-68 sales. The sharp increase was reportedly due to the poor Australian harvest and expectation of higher prices resulting from smaller Mediterranean crops this year. Currant exports in 1968-69 are estimated at 58,000 tons, about 3,500 tons less than in 1967-68. Fig exports totaled 11,600 tons—up 47 percent from the 7,900 tons shipped in 1967-68. Exports from the 1969 fig crop to the United States are expected to be less than 1,000 tons because of the low quality. This would represent a sharp drop from the nearly 1,900 tons shipped in 1968-69.

Small Potato Crop in England

Prospects for main-crop potatoes in England and Wales are not promising. Yields are forecast at 9.8 long tons per acre. This is ½ ton per acre lower than last year and ¼ ton lower than the 1966-68 average. Total potato acreage is down 11½ percent from 1968, the smallest since before World War II. Because of the reduced acreage and lower yields, there are some fears of a potato shortage in 1970.

Canada Expects Increased Oilseed Crops

Flaxseed production in Canada is currently estimated at 32.8 million bushels, 67 percent higher than the 1968 outturn of 19.7 million, and second only to the record 1956 harvest of 35.0 million bushels. Acreage increased 60 percent over last year and yields per acre 4 percent.

Estimated rapeseed production soared to 37.6 million bushels, 46 percent above the previous record crop of 25.8 million in 1966. The rapeseed area totaled 2.01 million acres, an increase of 91 percent over last year's 1.05 million. Yields per acre in 1969 are expected to average 18.7 bushels compared with 18.4 bushels a year ago.



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Foreign Agriculture

Production estimates released by the Dominion Bureau of Statistics on September 5 were based on yields indicated as of August 15.

CANADA'S FLAXSEED AND RAPESEED ACREAGE

Year	Flaxseed			Rapeseed		
	Area	Yield	Production	Area	Yield	Production
		Bushels			Bushels	
	1,000 acres	per acre ¹	1,000 bushels	1,000 acres	per acre ²	1,000 bushels
Average 1962-66 ...	1,867	11.6	21,732	920	16.5	15,170
Annual:						
1967	1,023	9.2	9,378	1,620	15.2	24,700
1968	1,524	12.9	19,666	1,052	18.4	19,400
1969 ³	2,440	13.4	32,796	2,012	18.7	37,600

¹ Bushels of 56 lb. ² Bushels of 50 lb. ³ Estimate as of Sept. 5, 1969. Dominion Bureau of Statistics.

Brazil Raises Oilseed Prices

The Brazilian Government, in an effort to encourage increased production, has raised support prices in the central and southern regions for a number of 1969-70 crops, including castorseed, soybeans, peanuts, and cottonseed. The decree establishing the new minimum prices was published August 7, 1969. (See also *Foreign Agriculture*, Aug. 25, 1969.)

SUPPORT PRICES FOR BRAZIL'S OILBEARING CROPS

Commodity	Unit	Support prices		Percentage increase
		1968-69	1969-70	
	Kilograms	NCr \$	NCr \$	Percent
Castorseed ...	60	9.28	17.46	88.1
Soybeans	60	9.97	13.00	30.4
Peanuts	25	6.30	8.00	27.0
Cottonseed ...	15	7.00	8.70	24.3

Brazil Expects Record Soybean Crop

Brazil's soybean plantings for harvest in 1970 are expected to increase by about 20 percent—to possibly 2.7 million acres, on the basis of growers' planting intentions. Should the average yield approximate the 1969 indicated yield, the 1970 harvest (March-June) could attain a record 40 million bushels of soybeans. The 1969 crop is now estimated, unofficially, at 33.8 million bushels.

Plantings in Paraná, which now accounts for about one-sixth of total production, are expected to increase by about one-third, primarily because of 2 factors: first, soybeans are

one of the crops which will be planted between rows of coffee trees damaged by July frost; and second, there is an increasing interest in wheat not only in Paraná but also in Rio Grande do Sul, the source of about three-fourths of the total soybean crop. Soybeans and wheat complement each other in these two States, but lack of combines has been a limiting factor for soybean production. Now, the government's program to promote wheat production will also benefit soybeans, as most of the machinery can be used for both crops. Practically all soybean farms in the State of São Paulo, the third largest producing State, are fully mechanized.

Soybean exports during 1969 are expected to reach a record 12 to 13 million bushels, most of which has already been sold and shipped. Exports were only 2 million in 1968 and 11 million in 1967. There is concern that some of the soybeans contracted for export but not shipped may be delivered instead for domestic crushing where the current market price is now above the export price. Soybean meal exports during January-June 1969 totaled 71,035 tons compared with 54,433 tons during the same period a year earlier.

At the end of July the government announced the new minimum prices for 1970 crop soybeans. They average about 30 percent above the corresponding prices for the 1969 crop but are considerably below the current and expected farm prices. The major importance of the minimum price is as a base for production financing from government and private banks.

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